REMARKS

Claims 1-4, 6-31, and 33-39 are pending. Claims 1, 13, 19, 31, and 35 are amended. Support for the amendments can be found in the originally filed specification at Figure 3 and at paragraphs [0022], [0023], and [0030]-[0032]. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 102

Claims 1-4, 6-10, 12-24, 27-31, 33-35 and 38 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Dickman et al. (U.S. Pat. App. No. 2001/0049038). This rejection is respectfully traversed.

The Examiner relies on Dickman et al. to teach adjusting hydrogen gas flow to fuel cell stacks in response to measured power output from the stacks in an application in which voltage is constant. However, Dickman et al. do not teach sensing gross load current in the course of isolating each of plural stacks connected in parallel, and individually balancing individual stack currents by adjusting parameters affecting the stacks for each of the stacks individually. For example, the Examiner relies on paragraph [0042] of Dickenson et al. to teach balancing the power collectively produced by "individual" stacks to a desired power output set-point. Also, the Examiner relies on paragraph [0034] of Dickenson et al. to teach that current through each stack is controlled individually. However, paragraph [0034] of Dickenson et al. reveals only that:

> [0034] Unlike a single fuel cell stack, each stack in assembly 77 may operate independent of the other stacks. By this it is meant that if one of the stacks fails or is otherwise removed from operation, such as for maintenance or repair, the other stacks may continue to operate and thereby produce current 78 to satisfy at least a portion of the applied load from device 80. Although the total rated power output of the stack

> assembly will not be available when at least one of the stacks is off-line or otherwise not producing an electric current, the stack assembly will still be able to produce a portion of its rated power output as long as at least one of its stacks is operating. In other words, stack assembly 77 provides an alternative to having either a single functioning stack, in which the maximum rated power output is available to supply the applied load of device 80, and no functioning stack, in which no power output is available, other than from previously stored power, if any.

However, in order to be "individually balanced," the current of each stack must be independently controlled to their respective balance points with respect to one or more thresholds. Such is not the case with the stacks of Dickenson et al., the operational ones of which are adjusted as a group (not individually) around a power output set point. Therefore, Dickenson et al. do not teach individually balancing individual stack currents by adjusting parameters affecting the stacks for each of the stacks individually, especially where Dickenson et al. merely teach continuing operation of some of the stacks when one of the stacks fails or is removed from operation.

Applicants' claimed invention is directed to sensing gross load current in the course of isolating each of plural stacks connected in parallel, and balancing individual stack currents by adjusting parameters affecting the stacks for each of the stacks individually. For example, independent claim 1, especially as amended, recites, "A fuel cell system comprising: a plurality of fuel cell stacks connected in parallel and supplying a gross current for a load ... and a controller that controls said gross current to produce a desired current through said load by sensing gross load current in the course of isolating each of the stacks, and individually balancing individual stack currents by adjusting, based on said gross load current, at least one parameter affecting at least one of said inputs and outputs to produce a desired current from one or more of said stacks individually." Independent claims 13, 19, 31, and 35, especially as amended,

recite similar subject matter. Therefore, Dickman et al. do not teach all of the limitations of the independent claims.

Accordingly, Applicants respectfully request the Examiner reconsider and withdraw the rejection of independent claims 1, 13, 19, 31, and 35 under 35 U.S.C. § 102(b), along with rejection on these grounds of all claims dependent therefrom.

REJECTION UNDER 35 U.S.C. § 103

Claims 11, 25-26, 36-37, and 39 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dickman et al. (U.S. Pat. App. No. 2001/0049038) in view of Boehm et al. (U.S. Pat. No. 6,461,751). This rejection is respectfully traversed.

As previously discussed, Dickman et al. do not teach, suggest, or motivate sensing gross load current in the course of isolating each of plural stacks connected in parallel, and balancing individual stack currents by adjusting parameters affecting the stacks for each of the stacks individually. Similarly, Boehm et al. fail to teach, suggest, or motivate this subject matter.

Accordingly, Applicants respectfully request the Examiner reconsider and withdraw the rejection of claims 11, 25-26, 36-37, and 39 under 35 U.S.C. § 103(a) in view of their dependence form allowable base claims.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and

favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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